



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

July 23, 2007

Reply to
Attn Of: ETPA-088

Ref: 04-059-AFS

Kathy Rodriguez, District Ranger
Admiralty Island National Monument
8465 Old Dairy Road
Juneau, Alaska 99801

Dear Ms. Rodriguez:

The U.S. Environmental Protection Agency (EPA) has reviewed the **draft Environmental Impact Statement (DEIS) for the proposed Angoon Hydroelectric Project** in the Kootznoowoo Wilderness, Admiralty Island National Monument, Tongass National Forest, in southeast Alaska (CEQ No. 20070196). Our review has been conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The DEIS has been prepared by the Forest Service (FS) in response to a proposal by Kootznoowoo, Inc., the Village Corporation for Angoon. The DEIS describes one action alternative (Alternative 2, the proposed action), a modification to that alternative (Alternative 2a), and a No-Action alternative. The action alternatives broadly depict a 1,000-kilowatt hydroelectric plant, utilizing a pipeline and penstock arrangement, and related facilities (power plant, dock facilities, diversion dam, staging areas, access roads, etc.). The significant issues identified in the DEIS include effects to water resources, including water quality, stream flow, stream ecology and wetlands, recreation, wildlife habitat, wilderness and scenic values. The Tongass Forest Supervisor will utilize the environmental analysis in the EIS to determine the terms and conditions to include in a Special Use Authorization (SUA) to protect the values of the Kootznoowoo Wilderness as identified in the Tongass Land Management Plan (Forest Plan).

EPA has objections to the preferred alternative as described in the DEIS and requests that information to address our concerns be included in the final EIS and Record of Decision (ROD). We have assigned a rating of EO-2 (Environmental Objections-Insufficient Information) to this project due to potential impacts to water quality and aquatic habitat. The DEIS indicates that a 1.5 mile reach of Thayer Creek below the diversion would experience reduced flows, resulting in temperature fluctuations that may be lethal to certain life stages of fish in both summer and winter. The description of Alternative 2a indicates that it may be the least environmentally damaging practicable alternative (LEDPA); however, Alternative 2 is identified as the preferred alternative. This is inconsistent with the requirements of the Clean Water Act Section 404(b)(1) Guidelines. EPA is also concerned that the DEIS relies on a poorly defined purpose and need statement which narrowly limits the range of alternatives and thus curtails the ability to rigorously explore and objectively evaluate all reasonable alternatives. The DEIS lacks adequate

disclosure of impacts, discussion of means to mitigate adverse impacts, and analysis of cumulative impacts. The DEIS does not provide documentation to support many of its statements and conclusions. An explanation of the EPA rating system and detailed comments are attached to this letter. The rating and a summary of these comments will be published in the *Federal Register*.

These issues, along with others that we believe need to be addressed in the final EIS, are discussed in greater detail in the enclosure to this letter. Should significant new information be developed in responding to comments on this DEIS, reviewing agencies and the general public should be given adequate opportunity to review and comment.

EPA is supportive of a project that would provide a stable source of affordable power for the economically distressed and isolated community of Angoon, particularly one that would lessen the community's reliance on diesel-generated power thereby improving local air quality and reducing residents' exposure to hazardous air emissions. EPA is supportive of a NEPA process that evaluates and selects an alternative that best meets the need for sustainable power supply to Angoon.

We are interested in working with the FS to successfully resolve the issues we have identified above and elaborated on in our enclosed detailed comments. I encourage you to contact Jennifer Curtis of my staff at 907-271-6324 to discuss our comments and how they might best be addressed for the project.

Sincerely,

//s//

Michelle Pirzadeh, Director
Office of Ecosystems, Tribal and Public Affairs

Enclosure

Enclosure 1

EPA Comments on Angoon Hydroelectric Project DEIS, Admiralty Island National Monument, Tongass National Forest

Purpose and Need

As written, the DEIS does not clearly demonstrate the need for the project. Discussion in the DEIS identifies a 24% decline in the local population from 1990 to 2004, with the expectation that this downward trend will continue, and does not identify any new projects or additional power needs during this time period or into the near future. There is no discussion of current or projected increase of power needs for the local community into the future. Analysis related to the projected economic benefits of the project is also absent from the document. Given the amount of power that would be generated by the proposed project and associated negative environmental effects, it is difficult to determine how the project meets the public interest.

Additionally, the discussion of purpose and need appears to confuse the FS's decision (action) regarding the terms and conditions of the Special Use Authorization (SUA) with meeting the need, which assumably is to provide the community of Angoon with a stable and less expensive source of power. Current data regarding the costs, reliability, and impacts, including socioeconomic and environmental data, should be incorporated into this section to support these statements. The purpose and need section should be revised to reflect the reason for the project, as well as the underlying rationale to support the need.

Range of Alternatives

The action alternatives as currently presented in the DEIS do not represent the full range of reasonable alternatives to meet the purpose and need if defined as supplying sustainable power to Angoon. The Council on Environmental Quality (CEQ) recommends that all reasonable alternatives be considered, even if some of them could be outside the capability or the jurisdiction of the agency preparing the EIS for the proposed action. CEQ has also stated that "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." This may include other types of power generation alternatives (e.g. tidal, wave-generated, wind), in combination with conservation measures, to meet the need. Such alternatives should be considered, even if not carried forward for further analysis. If an alternative does not satisfy the purpose and need for the project, it should not be included in the analysis as a reasonable alternative.

Even within the analysis of the alternatives for a hydroelectric project, analyses of additional alternatives that would avoid or minimize impacts are limited or absent. For example, the DEIS presents only one alignment for the proposed access road and penstock that, due to site characteristics, could result in runoff and mass wasting, which would impact water quality. Page 2-11 of the DEIS states that Kootznoowoo, Inc. evaluated other access options and did not pursue them for environmental and cost reasons, but it does not appear that they were fully considered in the DEIS.

The NEPA analysis should consider a range of reasonable alternatives that meets a clearly defined purpose and need for the project, and that is responsive to the issues identified during the DEIS comment period. This will ensure that the public and the decision-maker will have information that sharply defines the issues and identifies a clear basis for choice among alternatives as required by NEPA. EPA encourages selection of alternative(s) that will minimize adverse environmental impacts and resource degradation.

Water Quality and Quantity

The DEIS states that there will be significant impacts to water quality due to the impoundment, which will cause increased turbidity and sedimentation, changes in temperature, and reduction in quantity. There is little discussion on mitigation methods for the increased sedimentation, temperature changes or decreased flows in Thayer Creek, and no discussion about potential water quality standards violations.

The DEIS states that the development of the hydroelectric project would reduce flows in approximately 1.5 miles of Thayer Creek. Minimum instream flows may be such that the stream could freeze in the winter and increase to lethal temperatures during the summer. Coho salmon, steelhead trout, Dolly Varden, and cutthroat trout could be affected. Although the DEIS also states that minimum flows would be increased if monitoring stream temperature indicates that 20 cubic feet per second (cfs) is insufficient to maintain cutthroat habitat, there is no documentation to show that 20 cfs is an appropriate starting point or how decisions would be made to choose between the competing priorities of power generation and minimum instream flow.

Antidegradation provisions of the Clean Water Act apply to those water bodies where water quality standards are currently attained. This provision prohibits degrading the water quality unless an analysis shows that important economic and social development necessitates degrading water quality. The final EIS should explain how the antidegradation provisions would be met for the proposed project.

Furthermore, the DEIS mentions periodic flushing of sediment if necessary, based on the results of bed load monitoring, but there is no discussion on what conditions would determine the necessity of flushing and how often flushing will occur (i.e. once a month for a bed load of 30-60 meters³ per second, etc.). This information should be included in the final EIS.

Clean Water Act Section 404(b)(1) Guidelines

The Guidelines require, in part, that *no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge, which would have less adverse impact on the aquatic ecosystem* [see 40 CFR §230.10(a)]. This provision includes two considerations: the first addresses the practicability of alternatives and the second addresses the relative extent of potential adverse environmental impacts associated with the various alternatives under consideration.

The DEIS states that Alternative 2 would have greater potential to negatively affect wetlands than Alternative 2a due to the differential in the extent of overland road construction. There is no discussion of practicability differential. Therefore, from the information presented in the

DEIS, it would appear that Alternative 2a may be the least environmentally damaging practicable alternative (LEDPA) compared to the preferred alternative, Alternative 2. This is inconsistent with the requirements of the Clean Water Act Section 404(b)(1) Guidelines. EPA recommends that the NEPA analysis include a comparison of reasonable alternatives using environmental and practicability considerations consistent with the 404(b)(1) Guidelines such that there will be a clear indication as to which alternative is likely to be the LEDPA and therefore permissible under CWA Section 404.

Air Quality

One would expect that a key benefit of this project would be improved air quality due to reduction of emissions from the three diesel-fueled generators in Angoon. Yet the DEIS doesn't mention air quality. We recommend that the final EIS include information about current emissions from the generators and the reduction that would be realized by developing an alternative source of energy.

The DEIS indicates that the existing diesel generator facility would continue to be used to supplement power generated by the proposed hydroelectric project. We were unable to locate clear information in the DEIS that indicates why diesel generation would be necessary with operation of the hydroelectric project and if so, under what situations operation of the diesel generators would be necessary. This information should be included in the final EIS to ensure that the public and the decision maker are fully informed about how Kootznoowoo, Inc., would meet forecasted power demand with the operation of the proposed hydroelectric project. This is particularly important because the proposed hydroelectric project would apparently not eliminate the need for using the existing diesel generating system.

Project Impacts and Needed Mitigation Measures

The DEIS discloses a high reliance on yet-to-be-developed operation, mitigation and monitoring efforts or plans to ensure that natural and Wilderness resources will be protected. There is also extensive reference to FS best management practices (BMPs) with little or no explanation of what those BMPs are. While we support the concept of a project that would provide stable and reliable power to Angoon, we are concerned that the information necessary to define the effects from the proposed project and/or identify necessary mitigation measures is not included. Such information should be reflected in the final EIS, per the direction of the implementing regulations for the National Environmental Policy Act (NEPA) to "insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken" (40 CFR 1500.1(b)) and to "include appropriate mitigation measures not already included in the proposed action or alternatives" (40 CFR 1502.14(f)).

For example, the FS should consider developing and incorporating the following into the final EIS:

- erosion and soil control plan;
- road management plan;
- water quality monitoring plan;
- oil and hazardous substances spill and containment plan;
- wetland mitigation plan; and

- wildlife-human conflict plan.

This information is necessary to define project-specific effects and identify measures needed to mitigate identified impacts. Consequently, these plans should be completed and incorporated into the final EIS. We recommend that the FS ensure that all necessary analyses/studies are completed and included in the final EIS so that effects and appropriate mitigation approaches are defined and disclosed to the public in the EIS before decisions are made. Additionally, the FS should append a list of applicable BMPs to the final EIS.

Lack of Data

Gaps in essential baseline data are identified or evident throughout the document. As such, potential environmental, community and resource impacts, as well as potential benefits, are not appropriately analyzed. As the FS fills data gaps, EPA recommends that the following information be collected and included in the final EIS:

- 1) additional flow data for Thayer Creek,
- 2) dye tracing to determine and verify extent and location of karst systems in northern portion of project area,
- 3) ground surveys to determine if Queen Charlotte Goshawk (an “Alaska species of special concern” and a “Federal Sensitive Species”) nests are present in the project corridor,
- 4) current and projected emissions and cost data from the diesel power facility,
- 5) available tidal and bathymetric information for Chatham Strait,
- 6) the most current subsistence survey information, and
- 7) the most current wetlands information by type and acreage, based on the most current project design.

Habitat

The proposed project may have impacts on fish and wildlife habitat, and habitat connectivity. The final EIS should better describe the current quality and potential capacity of habitat, its use by fish and wildlife on and near the proposed project area, and identify known fish and wildlife corridors, migration routes, and areas of seasonal fish and wildlife congregation. The EIS should evaluate effects on plants, fish and wildlife from habitat removal and alteration, aquatic and terrestrial habitat fragmentation caused by the road, transmission corridor, and other management and human activities. The final EIS should discuss how the proposed operations would support retention of forest structures, which are important for wildlife migration, recruitment and dispersal, rearing and feeding.

Transportation and Utility System Land Use Designation

It is not clear that the Transportation and Utility System (TUS) Land Use Designation (LUD) is an appropriate management prescription for this project based on the information provided, given that the project is located in the Admiralty Island National Monument, as well as the size of the project. Additional information regarding the criteria of this LUD should be included in the final EIS.

Invasive Species

Invasive species can aggressively spread into areas altered by road construction and other disturbance activities. Nationally, as well as in Alaska, the establishment of invasive nuisance

species has rapidly become an issue of extreme environmental and economic significance. EPA strongly supports weed control and management during and after construction activities. The final EIS should provide a discussion to comply with the Executive Order (EO 13112) on invasive species. Aside from the discussion of noxious weeds present in the project area, if any, weed monitoring and control activities should be identified.

Recreation and Access

Recreation and access opportunities that may result from the proposed project could have significant environmental impacts. The impacts from recreation and access should be more thoroughly analyzed and reported in the final EIS. Impacts such as those from off-road vehicle use can result in habitat destruction, increased sedimentation to water bodies, noise and air pollution. We recommend the EIS disclose of all impacts associated with such activities and describe what actions will be taken to manage recreational and accessibility opportunities in the project area.

Monitoring

The project as proposed has the potential to impact several species of fish, birds, rare plants, and deer, as well as their habitat. In this case, monitoring is needed to evaluate population changes that may be occurring not only from the proposed project, but other factors including climate change. We recommend that the final EIS describe a monitoring program designed to assess both impacts from the project and the effectiveness of measures utilized to mitigate such impacts.

Clear monitoring goals and objectives should be identified such as what questions are to be answered; what parameters are to be monitored; where and when monitoring will take place; who will be responsible; how the information will be evaluated; what actions (contingencies, adaptive management, corrections to future actions) will be taken based on the information; and how the public can get information on mitigation effectiveness and monitoring results. Currently, there is no clear discussion of monitoring in the DEIS.

Cumulative and Indirect Impacts

EPA has issued guidance on how we are to provide comments on the assessment of cumulative impacts, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*, which can be found on EPA's Office of Federal Activities home page at: <http://www.epa.gov/compliance/resources/nepa.html>. The guidance states that in order to assess the adequacy of the cumulative impacts assessment, five key areas should be considered. EPA tries to assess whether the cumulative effects analysis:

1. Identifies resources if any, that are being cumulatively impacted;
2. Determines the appropriate geographic (within natural ecological boundaries) area and the time period over which the effects have occurred and will occur;
3. Looks at all past, present, and reasonably foreseeable future actions that have affected, are affecting, or would affect resources of concern;
4. Describes a benchmark or baseline;
5. Includes scientifically defensible threshold levels.

Currently, the DEIS dismisses the need for any cumulative effects because of "no known past, present, or reasonably foreseeable projects that would add to the impact of this project." At

a minimum, the FS should include a discussion of any activities in the larger area surrounding the immediate project boundaries, to include projects and infrastructure in the community of Angoon.

Additionally, the final EIS should identify and evaluate potential indirect effects of the proposed project outside of the project area boundaries. If the proposed project could provide power for communities or facilities outside of Angoon, the project could potentially generate water quality impacts in other areas. These and other indirect impacts, if applicable, should be discussed and evaluated in the final EIS.

Tribal Consultation

It is not clear that the Angoon Community Association, the federally-recognized tribal government in the project area, has been offered government-to-government consultation on this project. Since the proposed project could affect subsistence and cultural resources of Native Alaskans in the project area, if consultation has not occurred, tribal governments whose members may be impacted, either directly and indirectly, should be invited to consult on a government-to-government basis on this matter, consistent with Executive Order (EO) 13175 (*Consultation and Coordination with Indian Tribal Governments*). Documentation of these consultations should be included in the final EIS.

In addition, consistent with the July 28, 1999, memorandum from the Council on Environmental Quality (CEQ) to the Heads of Federal Agencies, the FS should consider inviting the affected tribal government(s) to participate in the EIS development process as cooperating agencies. This would provide for the establishment of a mechanism for addressing intergovernmental issues throughout the EIS development process. It is not clear in the DEIS that this opportunity has been afforded the Angoon Community Association.

Environmental Justice

This project does not identify if low income or minority communities could be impacted by this project, nor is an analysis of those potential impacts included. The final EIS should disclose what efforts were taken to meet environmental justice requirements consistent with Executive Order (EO) 12898 (*Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*). This should include a description of the methodology and criteria utilized for identifying low income and people of color communities; a comprehensive accounting of all impacts on low income or minority communities; and discussion demonstrating that any populations that have determined to be disproportionately impacted have had the opportunity for meaningful input into the decisions being made about the project. Extra care should be given to schedule meetings and decision points in the EIS process to avoid conflicts with subsistence and other traditional activities whenever possible.

Readability

There are numerous instances of mislabeled figures and page numbers, missing pages (hard copy only), and erroneous and contradictory statements, which affect the readability of the document. The FS should identify and correct these errors in the final EIS.